

**REMARKS**

The Office Action rejects claims 36, 37, and 42 under 35 U.S.C. § 103(a) as being unpatentable over Wajid (U.S. Patent No. 5,233,261) in view of Mansfield (U.S. Patent No. 4,682,994). The Office Action also rejects claims 38 and 39 under 35 U.S.C. § 103(a) as being unpatentable in view of Wajid and Mansfield and further in view of Altemir (U.S. Patent No. 5,684,276). The Office Action also rejects claim 40 under 35 U.S.C. § 103(a) as being unpatentable over Wajid, Mansfield, Altemir, and Hertzman (U.S. Patent No. 6,115,112).<sup>1</sup>

Applicants thank Examiner Belyaev and primary Examiner Lazorcik for the courtesy extended during the telephone interview with Applicants' undersigned representative on September 15, 2010. During the interview, Applicants' representative explained that the cited references cannot support a *prima facie* case of obviousness of the claims for a number of reasons. Applicants' representative explained, for example, that a person of ordinary skill in the art would not find it obvious to apply the non-analogous art of quartz crystal microbalance of Wajid to Mansfield's method of forming optical fiber preforms. Further, Applicants' representative explained that even if a person of ordinary skill in the art did find Wajid relevant to making optical fiber preforms, applying the teachings of Wajid to Mansfield's system would not produce the claimed methods and processes. Applicants' representative also explained that Wajid includes no mention of certain aspects of the claimed methods and processes, such as making

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<sup>1</sup> Applicants note that the certain portions of the Office Action refer to "Ronn," stating, e.g., "Wajid in view of Ronn do not disclose generating a signal." See Office Action at p. 4. In the context of the other statements in the Office Action, Applicants believe that the references in the Office Action to "Ronn" are typographical errors, and that the Office Action intended these to be references to Mansfield.

preforms for optical fibres, oscillating the deposited mass itself, or even monitoring the weight of the deposited mass. The remarks set forth below discuss these deficiencies in greater detail.

By this Reply, Applicants have amended independent claim 36 to recite "inducing an oscillation of said elongated element with the preform at least partially formed on the elongated element." Additionally, Applicants have amended independent claim 42 to recite "inducing an oscillation of said elongated element with the preform at least partially formed on the elongated element." Applicants have also added dependent claims 43-52. Applicants respectfully submit that the originally filed application fully supports the amendments to the claims. Claims 36-40 and 42-52 are currently pending.

**Rejection of Independent Claims 36 and 42 Under 35 U.S.C. § 103(a)**

Applicants respectfully submit that the cited references cannot support a *prima facie* case of obviousness of independent claims 36 and 42. Independent claim 36 recites, *inter alia*, "[a] method for measuring the weight of a preform for optical fibres during a chemical deposition process for the formation of a preform, comprising the steps of: . . . inducing an oscillation of said elongated element with the preform at least partially formed on the elongated element" (emphasis added). Similarly, independent claim 42 recites, *inter alia*, "[a] chemical deposition process for the formation of a preform for optical fibres, which comprises measuring the weight of the preform by the steps comprising: . . . inducing an oscillation of said elongated element with the preform at least partially formed on the elongated element" (emphasis added).

Applicants respectfully submit that Wajid constitutes nonanalogous art to the claimed method and process. Wajid does not relate to the field of making preforms for

optical fibres. Wajid's disclosure focuses on details of the construction of a quartz crystal microbalance, particularly the specific layers of material used in the quartz crystal microbalance. See Abstract; and col. 4, l. 54-col. 6, l. 54. Wajid does not once mention anything about preforms for optical fibres or processes of making such preforms. Furthermore, Wajid does not even relate to the problem of measuring weight. Wajid suggests the possibility of using a quartz crystal microbalance to measure "film deposition thickness and rates," but nowhere does it say anything about measuring weight. Col. 1, ll. 7-8. Thus, a person of ordinary skill in the art would understand that Wajid has nothing to do with making preforms for optical fibres or measuring the weight of such preforms. Such nonanalogous art cannot support a *prima facie* case of obviousness. See M.P.E.P. § 2141.01(a).

Furthermore, even if a person of ordinary skill in the art thought that Wajid had any relevance to making preforms for optical fibres, applying the teachings of Wajid to Mansfield's system would not produce the claimed methods and processes. As noted above, a method according to claim 36 and a process according to claim 42 include "inducing an oscillation of said elongated element with the preform at least partially formed on the elongated element." In contrast, Wajid does not teach or suggest oscillating the structure supporting the product itself. Instead, Wajid suggests catching a separate test sample of material on the quartz crystal microbalance located adjacent the product being manufactured and monitoring a resonant frequency of the quartz crystal microbalance. See col. 1, ll. 10-31. This in no way involves inducing oscillation of the structure supporting the product itself. Thus, if a person of ordinary skill in the art did decide to apply Wajid to Mansfield, Wajid would have suggested, at most, to catch a

sample of material on a quartz crystal microbalance beside the elongated element and oscillating the microbalance, not "1" as recited in claims 36 and 42.

Moreover, even if Wajid did suggest oscillating the structure supporting the product itself, Wajid presents no practical way of doing so in the context of Mansfield's system. Wajid induces oscillation by constructing the quartz crystal microbalance with piezoelectric material and applying electricity to this material. See col. 1, ll. 16-22; and col. 2, ll. 6-12. Applicant respectfully submits that person of ordinary skill in the art would not find it practical to use piezoelectric material to construct an elongated element for supporting an optical fibre preform, or to apply electricity to such an elongated element. And Wajid suggests no other way that one could induce oscillation of an elongated element for supporting an optical fibre preform.

For at least the foregoing reasons, Applicant respectfully submits that the cited references cannot support a *prima facie* case of obviousness of independent claims 36 and 42. Accordingly, Applicant respectfully requests withdrawal of the rejection of these claims under 35 U.S.C. § 103(a).

**Rejections of Dependent Claims 37-40 and 43-52 Under 35 U.S.C. § 103(a)**

Applicants respectfully submit that the above-discussed deficiencies in the rejections of independent claims 36 and 42 apply equally to the rejections of dependent claims 37-40 and 43-52, each of which depends directly or indirectly from one of independent claims 36 and 42. Neither the citation of Altemir and Hertzman nor the remarks in the rejections of dependent claims 37-40 and 43-52 cure the above-discussed deficiencies in the rejection of independent claims 36 and 42. Accordingly,

Applicant respectfully requests withdrawal of the rejections of claims 37-40 and 43-52 under 35 U.S.C. § 103(a).

**Conclusion**

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

The Office Action contains characterizations of the claims and the related art with which Applicant does not necessarily agree. Unless expressly noted otherwise, Applicants decline to subscribe to any statement or characterization in the Office Action.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

If the Examiner believes a telephone conversation might advance prosecution, the Examiner is invited to call Applicants' undersigned agent at 202-408-4492.

Respectfully submitted,

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By: 

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